11/4/03 DRAFT

Fire Regime Condition Class (FRCC) Interagency Handbook
Reference Conditions

Modeler: Wendel Hann **Date:** 9/26/03 **PNVG Code:** DGRA1

Potential Natural Vegetation Group: Desert Grassland (Without Trees or Shrubs).

Geographic Area: Southwest (AZ, NM) and Southern Great Plains (W. TX)

Description: This type typically occurs in the plains or on valley benches below the foothills in mountainous areas. Vegetation is grassland dominated by blue grama, tobosa grass, galleta grass, and buffalo grass, with intermingled forbs and half-shrubs. This type correlates with Kuchler (1964) types 53 and 54.

Fire Regime Description: Fire regime group II, frequent replacement. The mean fire interval is about 10 years long, with high variation due to drought, which reduces fire frequency and moist periods that increase fire frequency. Grazing of the grassy fuels by large ungulate herds (buffalo) also substantially influenced fire mosaic pattterns in this type. This type typically burns during the late spring (May, June, early July) and fall (late September, October, November) in association with the hot, dry periods that follow the winter and late spring (December through April) rainy season and summer (late July, August, early September) monsoon season.

Vegetation Type and Structure of Fire Regime Group II

Class	Percent of Landscape	Description
A: post replacement	15	Dominated by resprouts of desert grassland species and post-fire associated forbs and half-shrubs. This type typically occurs where fires burn relatively hot in classes B and C.
B: mid-development closed	20	Greater than 40 percent grass and forb cover; generally associated with productive soils on concave gentle slopes and undulating plains.
C: mid- open	65	Less than 40 percent grass and forb cover generally associated with gentle convex slopes or gravelly and cobbly soils on the plains.
Total	100	

Fire Frequency and Severity

Fire Frequency-Severity	Modeled Probability	Pct, All Fires	Description
Replacement Fire	.093	93	Replacement fires in B and C
Non-Replacement Fire	.007	7	Mosaic and surface fires in D and mosaic fires in C
All Fire Frequency*	.100	100	10 year mean fire frequency with high variation due to drought and large ungulate (buffalo) grazing influences

*Sum of replacement fire and non-replacement fire probabilities.

Use of Optional1 disturbance code in reference value modeling for large ungulate (primarily buffalo) grazing.

References

Brown, James K.; Smith, Jane Kapler, eds. 2000. Wildland fire in ecosystems: effects of fire on flora. Gen. Tech. Rep. RMRS-GTR-42-vol. 2. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 257 p.

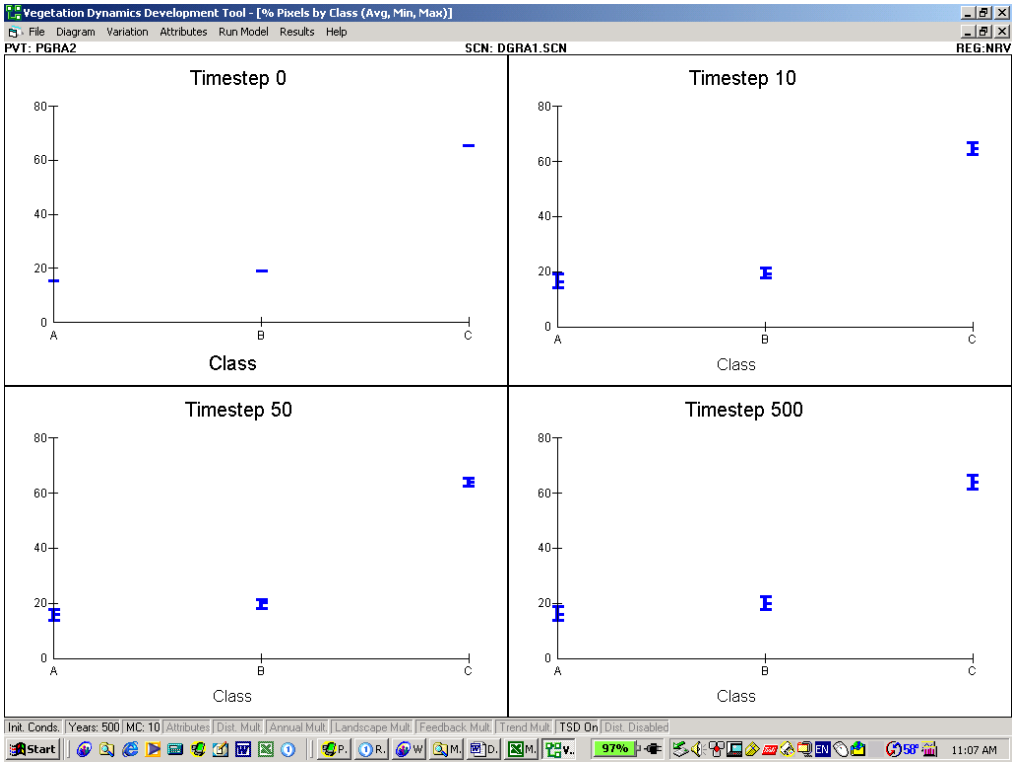
Kuchler, A. W. 1964. Manual to accompany the map of potential natural vegetation of the conterminous United States. American Geographical Society. Spec. Publ. No. 36. Lib. Congress Cat. Card Num. 64-15417. 156 p.

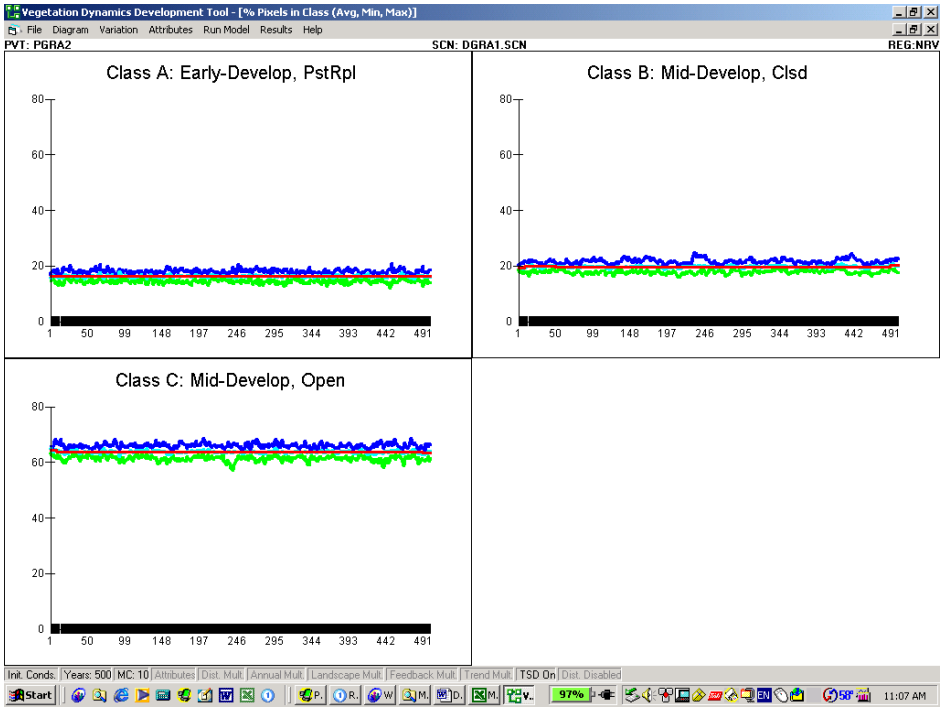
Schmidt, Kirsten M, Menakis, James P., Hardy, Colin C., Hann, Wendel J., Bunnell, David L. 2002. Development of coarse-scale spatial data for wildland fire and fuel management. Gen. Tech. Rep. RMRS-GTR-87. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 41 p. + CD.

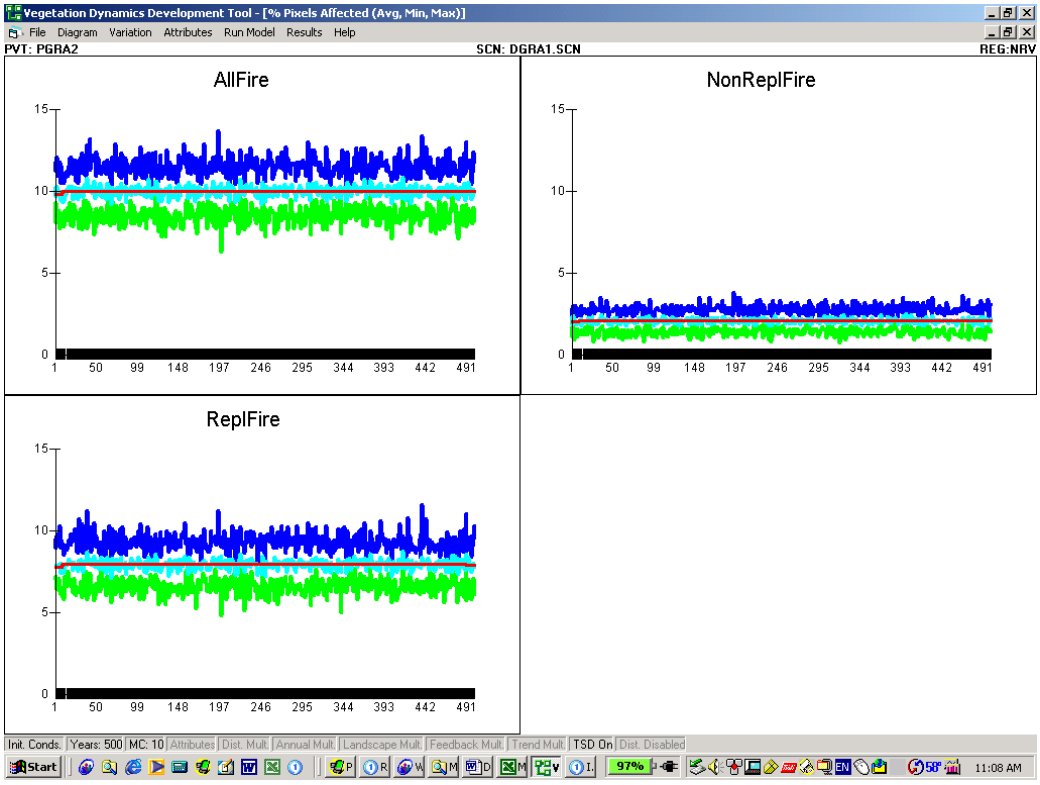
U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory (2002, December). Fire Effects Information System, [Online]. Available: http://www.fs.fed.us/database/feis/ (User Supply Access Date?).

MODELER FIELD REVIEWS: *PROVIDE SPECIFIC LOCATIONS?
Wendel Hann, West Texas 2001, New Mexico 2003.

VDDT Results






Vegetation Dynamics Development Tool - [% Pixels Affected (Avg, Min, Max)]
File Diagram Variation Attributes Run Model Results Help
PVT: PGRA2
SCN: DGRA1.SCN
REG:NRV
AllFire
NonReplFire
ReplFire
15
10
5
0
1 50 99 148 197 246 295 344 393 442 491
Init. Conds.
Years: 500
MC: 10
Attributes
Dist. Mult.
Annual Mult.
Landscape Mult.
Feedback Mult.
Trend Mult.
TSD On
Dist. Disabled
Start
97%
11:08 AM